

IN THE CLAIMS:

1. A method for building a representation of a graphical user interface (GUI), comprising:
 - generating a class;
 - generating a first representation of the GUI, wherein the class can produce a second representation GUI based on the first representation;
 - generating a second representation of the GUI from the class, wherein the second representation includes at least one control; and
 - wherein the first representation can include at least one of: hierarchical relationships among controls, control properties, and control event information.
2. The method of claim 1, further comprising:
 - creating the first representation by parsing a file.
3. The method of claim 2 wherein:
 - the file is a JavaServer Pages (JSP) file.
4. The method of claim 1 wherein:
 - the second representation is a tree.
5. The method of claim 1 wherein:
 - the step of generating the class occurs as a result of receiving a request.
6. The method of claim 5 wherein:
 - the request is a hypertext transfer protocol request (HTTP); and
 - the request originates from a web browser.
7. The method of claim 1, further comprising:
 - providing a response to a web browser.
8. The method of claim 1 wherein:

the second representation can be driven through at least one lifecycle stage by an interchangeable lifecycle component.

9. The method of claim 1 wherein:
the at least one control has an interchangeable persistence mechanism.
10. The method of claim 1 wherein:
the at least one control can render itself according to a theme.
11. The method of claim 1 wherein:
one of the at least one controls can interact with another of the at least one controls.
12. The method of claim 1 wherein:
one of the at least one controls can advance through the at least one lifecycle stage in parallel with another of the at least one controls.
13. The method of claim 8 wherein:
the at least one lifecycle stage is one of: init, load state, create child controls, load, raise events, pre-render, render, save state, unload and dispose; and
wherein the lifecycle stage is part of a dynamically configurable lifecycle.
14. The method of claim 7 wherein:
the response is a hypertext transfer protocol (HTTP) response.
15. The method of claim 1 wherein:
the at least one control can raise events and respond to events.
16. The method of claim 1 wherein:
the at least one control can be one of: Book, Page, Window, Menu, Layout, Portlet, Theme, Placeholder, Shell, LookAndFeel, Desktop, Body, Footer, Header, Head, Titlebar, ToggleButton, TreeView, TreeViewWithRadioButtons.

17. A method for building a representation of a graphical user interface (GUI), comprising:

generating a representation of the GUI from metadata, wherein the representation includes at least one control;

driving the representation through at least one lifecycle stage by an interchangeable lifecycle component;

wherein the metadata can include at least one of: hierarchical relationships among controls, control properties, and control event information; and

wherein the representation can be driven through the at least one lifecycle stage by an interchangeable lifecycle component.

18. The method of claim 17, further comprising:

creating the metadata by parsing a file.

19. The method of claim 17 wherein:

the step of generating the metadata representation occurs as a result of receiving a request.

20. The method of claim 19 wherein:

the request is a hypertext transfer protocol request (HTTP); and
wherein the request originates from a web browser.

21. The method of claim 17, further comprising:

providing a response to a web browser.

22. The method of claim 17 wherein:

the at least one control has an interchangeable persistence mechanism.

23. The method of claim 17 wherein:

the at least one control can render itself according to a theme.

24. The method of claim 17 wherein:

one of the at least one controls can interact with another of the at least one controls.

25. The method of claim 17 wherein:

one of the at least one controls can advance through the at least one lifecycle stage in parallel with another of the at least one controls.

26. The method of claim 17 wherein:

the at least one lifecycle stage is one of: init, load state, create child controls, load, raise events, pre-render, render, save state, unload and dispose; and wherein the lifecycle stage is part of a dynamically configurable lifecycle.

27. The method of claim 21 wherein:

the response is a hypertext transfer protocol (HTTP) response.

28. The method of claim 17 wherein:

controls can raise events and respond to events.

29. The method of claim 17 wherein:

the at least one control can be one of: Book, Page, Window, Menu, Layout, Portlet, Theme, Placeholder, Shell, LookAndFeel, Desktop, Body, Footer, Header, Head, Titlebar, ToggleButton, TreeView, TreeViewWithRadioButtons.

30. A system for building a representation of a graphical user interface (GUI), comprising:

a first component operable to produce a second component and a metadata representation of the GUI;

the second component operable to produce a hierarchical representation of the GUI based on the metadata, wherein the representation includes at least one control;

wherein the metadata can include at least one of: hierarchical relationships among controls, control properties, and control event information; and

wherein the representation can be driven through at least one lifecycle stage by an interchangeable lifecycle component.

31. The system of claim 30, further comprising:
a parser operable to parse a file and create the metadata.
32. The system of claim 31 wherein:
the file is a JavaServer Pages (JSP) file.
33. The system of claim 30 wherein:
the first generator produces the second generator in response to receiving a request.
34. The system of claim 33 wherein:
the request is a hypertext transfer protocol request (HTTP); and
wherein the request originates from a web browser.
35. The system of claim 30 wherein:
a response is provided to a web browser.
36. The system of claim 30 wherein:
the at least one control has an interchangeable persistence mechanism.
37. The system of claim 30 wherein:
the at least one control can render itself according to a theme.
38. The system of claim 30 wherein:
one of the at least one controls can interact with another of the at least one controls.
39. The system of claim 30 wherein:
one of the at least one controls can advance through the at least one lifecycle stage in parallel with another of the at least one controls.
40. The system of claim 30 wherein:

the at least one lifecycle stage is one of: init, load state, create child controls, load, raise events, pre-render, render, save state, unload and dispose; and
 wherein the lifecycle stage is part of a dynamically configurable lifecycle.

41. The system of claim 35 wherein:
 the response is a hypertext transfer protocol (HTTP) response.
42. The system of claim 30 wherein:
 the at least one control can raise events and respond to events.
43. The system of claim 30 wherein:
 the at least one control can be one of: Book, Page, Window, Menu, Layout, Portlet, Theme, Placeholder, Shell, LookAndFeel, Desktop, Body, Footer, Header, Head, Titlebar, ToggleButton, TreeView, TreeViewWithRadioButtons.
44. A system comprising:
 a means for generating a first representation of a graphical user interface (GUI);
 a means for generating a second representation of the GUI from the first representation, wherein the second representation includes at least one control;
 wherein the metadata can include at least one of: hierarchical relationships among controls, control properties, and control event information; and
 wherein the second representation can be driven through at least one lifecycle stage by an interchangeable lifecycle component.
45. The system of claim 44, further comprising:
 a means for parsing a file and creating the metadata.
46. The system of claim 45 wherein:
 the file is a JavaServer Pages (JSP) file.
47. The system of claim 44, further comprising:
 the means for accepting a request.

48. The system of claim 47 wherein:
the request is a hypertext transfer protocol request (HTTP); and
wherein the request originates from a web browser.
49. The system of claim 44, further comprising:
a means to provide a response to a web browser.
50. The system of claim 44 wherein:
the at least one control has an interchangeable persistence mechanism.
51. The system of claim 44 wherein:
the at least one control can render itself according to a theme.
52. The system of claim 44 wherein:
one of the at least one controls can interact with another of the at least one controls.
53. The system of claim 44 wherein:
one of the at least one controls can advance through the at least one lifecycle stage in parallel with another of the at least one controls.
54. The system of claim 44 wherein:
the at least one lifecycle stage is one of: init, load state, create child controls, load, raise events, pre-render, render, save state, unload and dispose; and
wherein the lifecycle stage is part of a dynamically configurable lifecycle.
55. The system of claim 49 wherein:
the response is a hypertext transfer protocol (HTTP) response.
56. The system of claim 44 wherein:
the at least one control can raise events and respond to events.

57. The system of claim 44 wherein:
the at least one control can be one of: Book, Page, Window, Menu, Layout, Portlet, Theme, Placeholder, Shell, LookAndFeel, Desktop, Body, Footer, Header, Head, Titlebar, ToggleButton, TreeView, TreeViewWithRadioButtons.
58. A machine readable medium having instructions stored thereon that when executed by a processor cause a system to:
generate a representation of a graphical user interface (GUI) from metadata, wherein the representation includes at least one control;
drive the representation through at least one lifecycle stage by an interchangeable lifecycle component;
wherein the metadata can include at least one of: hierarchical relationships among controls, control properties, and control event information; and
wherein the representation can be driven through the at least one lifecycle stage by an interchangeable lifecycle component.
59. The machine readable medium of claim 58, further comprising instructions that when executed cause the system to:
create the metadata by parsing a file.
60. The machine readable medium of claim 58 wherein:
the step of generating the metadata representation occurs as a result of receiving a request.
61. The machine readable medium of claim 60 wherein:
the request is a hypertext transfer protocol request (HTTP); and
wherein the request originates from a web browser.
62. The machine readable medium of claim 58, further comprising instructions that when executed cause the system to:
provide a response to a web browser.
63. The machine readable medium of claim 58 wherein:

the at least one control has an interchangeable persistence mechanism.

64. The machine readable medium of claim 58 wherein:
the at least one control can render itself according to a theme.
65. The machine readable medium of claim 58 wherein:
one of the at least one controls can interact with another of the at least one controls.
66. The machine readable medium of claim 58 wherein:
one of the at least one controls can advance through the at least one lifecycle stage in parallel with another of the at least one controls.
67. The machine readable medium of claim 58 wherein:
the at least one lifecycle stage is one of: init, load state, create child controls, load, raise events, pre-render, render, save state, unload and dispose; and
wherein the lifecycle stage is part of a dynamically configurable lifecycle.
68. The machine readable medium of claim 62 wherein:
the response is a hypertext transfer protocol (HTTP) response.
69. The machine readable medium of claim 58 wherein:
controls can raise events and respond to events.
70. The machine readable medium of claim 58 wherein:
the at least one control can be one of: Book, Page, Window, Menu, Layout, Portlet, Theme, Placeholder, Shell, LookAndFeel, Desktop, Body, Footer, Header, Head, Titlebar, ToggleButton, TreeView, TreeViewWithRadioButtons.
71. A computer data signal embodied in a transmission medium, comprising:
a code segment including instructions to generate a representation of a graphical user interface (GUI) from metadata, wherein the representation includes at least one control;

a code segment including instructions to drive the representation through at least one lifecycle stage by an interchangeable lifecycle component;

wherein the metadata can include at least one of: hierarchical relationships among controls, control properties, and control event information; and

wherein the representation can be driven through the at least one lifecycle stage by an interchangeable lifecycle component.